

Claims

We claim:

1. An immunological test kit comprising a *Borellia burgdorferi* epitope polypeptide with an amino acid sequence
5 selected from the group consisting of: VQEGVQQEGAQQP-(beta-A) (beta-,4)C;
EIAAKAIGKKIHQNNG-(beta-A) (beta-A)C;
ISTLIKQKLDGLKNE-(beta-A) (beta-A)C; PWAESPKKPE-(beta-A) (beta-A)C;
DKKAINLDKAQQKLD-(beta-A) (beta-A)C; ITKGKSQKSLGD-(beta-A) (beta-A)C; and GMTFRAQEGAFLTG-(beta-A) (beta-A)C.
- 10 2. The kit of claim 1, wherein said epitope polypeptide comprises VQEGVQQEGAQQP-(beta-A) (beta-,4)C.
3. The kit of claim 2, wherein said epitope polypeptide consists essentially of VQEGVQQEGAQQP-(beta-A) (beta-,4)C.
4. The kit of claim 1, wherein said epitope polypeptide
15 comprises EIAAKAIGKKIHQNNG-(beta-A) (beta-A)C.
5. The kit of claim 4, wherein said epitope polypeptide consists essentially of EIAAKAIGKKIHQNNG-(beta-A) (beta-A)C.
6. The kit of claim 1, wherein said epitope polypeptide comprises ISTLIKQKLDGLKNE-(beta-A) (beta-A)C.
- 20 7. The kit of claim 6, wherein said epitope polypeptide consists essentially of ISTLIKQKLDGLKNE-(beta-A) (beta-A)C.
8. The kit of claim 1, wherein said epitope polypeptide comprises PWAESPKKPE-(beta-A) (beta-A)C.
9. The kit of claim 8, wherein said epitope polypeptide
25 consists essentially of PWAESPKKPE-(beta-A) (beta-A)C.
10. The kit of claim 1, wherein said epitope polypeptide comprises DKKAINLDKAQQKLD-(beta-A) (beta-A)C.
11. The kit of claim 10, wherein said epitope polypeptide consists essentially of DKKAINLDKAQQKLD-(beta-A) (beta-A)C.
- 30 12. The kit of claim 1, wherein said epitope polypeptide comprises ITKGKSQKSLGD-(beta-A) (beta-A)C.
13. The kit of claim 12, wherein said epitope polypeptide consists essentially of ITKGKSQKSLGD-(beta-A) (beta-A)C.
14. The kit of claim 1, wherein said epitope polypeptide
35 comprises GMTFRAQEGAFLTG-(beta-A) (beta-A)C.

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15. The kit of claim 14, wherein said epitope polypeptide consists essentially of GMTFRAQEGAFITG-(beta-A) (beta-A)C.

16. An apparatus for isolating antibody, said apparatus
5 comprising a *Borellia burgdorferi* epitope polypeptide with an amino acid sequence selected from the group consisting of:
VQEGVQQEGAQQP-(beta-A) (beta-,4)C; EIAAKAIGKKIHQNNG-(beta-A) (beta-A)C; ISTLIKQKLDGLKNE-(beta-A) (beta-A)C; PWAESPKKPE-(beta-A) (beta-A)C;
10 DKKAINLDKAQQKLD-(beta-A) (beta-A)C; ITKGKSQKSLGD-(beta-A) (beta-A)C; and GMTFRAQEGAFITG-(beta-A) (beta-A)C.

17. The apparatus of claim 16, wherein said epitope polypeptide comprises VQEGVQQEGAQQP-(beta-A) (beta-,4)C.

18. The apparatus of claim 17, wherein said epitope
15 polypeptide consists essentially of VQEGVQQEGAQQP-(beta-A) (beta-,4)C.

19. The apparatus of claim 16, wherein said epitope polypeptide comprises EIAAKAIGKKIHQNNG-(beta-A) (beta-A)C.

20. The apparatus of claim 19, wherein said epitope
20 polypeptide consists essentially of EIAAKAIGKKIHQNNG-(beta-A) (beta-A)C.

21. The apparatus of claim 16, wherein said epitope polypeptide comprises ISTLIKQKLDGLKNE-(beta-A) (beta-A)C.

22. The apparatus of claim 21, wherein said epitope
25 polypeptide consists essentially of ISTLIKQKLDGLKNE-(beta-A) (beta-A)C.

23. The apparatus of claim 16, wherein said epitope polypeptide comprises PWAESPKKPE-(beta-A) (beta-A)C.

24. The apparatus of claim 23, wherein said epitope
30 polypeptide consists essentially of PWAESPKKPE-(beta-A) (beta-A)C.

25. The apparatus of claim 16, wherein said epitope polypeptide comprises DKKAINLDKAQQKLD-(beta-A) (beta-A)C.

26. The apparatus of claim 25, wherein said epitope
35 polypeptide consists essentially of DKKAINLDKAQQKLD-(beta-A) (beta-A)C.

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27. The apparatus of claim 16, wherein said epitope polypeptide comprises ITKGKSQKSLGD-(beta-A)(beta-A)C.
28. The apparatus of claim 27, wherein said epitope polypeptide consists essentially of ITKGKSQKSLGD-(beta-A)(beta-A)C.
- 5 29. The apparatus of claim 28, wherein said epitope polypeptide comprises GMTFRAQEGAFLTG-(beta-A)(beta-A)C.
30. The apparatus of claim 29, wherein said epitope polypeptide consists essentially of GMTFRAQEGAFLTG-(beta-A)(beta-A)C.
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